Graz. Each of these patients was placed upon a diet affording the proper number of *calorien* daily, according to his body-weight, and was kept upon this diet for the full period of the experiment, which lasted usually for from five to six days. It was thus possible to make the amount of nitrogen eliminated about constant from day to day; the total nitrogen ingested, as well as the total nitrogen given off in the urine and feces, were estimated by Kjeldahl's method. In addition, the alloxur-bodies were estimated by the Kruger-Wulf method, and in two instances the uric acid was also estimated, the method of Ludwig being employed for this purpose.

Kolisch had stated the normal amount of alloxur-body-nitrogen for twenty-four hours to be 0.260 gramme. A comparison of the few estimations that have been made by other investigators would make this value appear to be rather too low. When the alloxur-body-nitrogen reaches 0.4 gramme, or a little more than this, it may, according to Futcher, be considered as physiologically high, while amounts reaching 0.5 gramme or more may be said to be pathological. Futcher's study of his eight cases seems to prove conclusively that there is no definite connection between Neusser's granules and the elimination of the alloxur-bodies in the urine. He found instances in which the granules were numerous, even extremely numerous, while the quantity of alloxur-bodies in the urine was relatively low. In other instances, where the amount of alloxur-bodies was high the granules could be present in very small numbers. He further observed in two patients suffering from the same disease (hypertrophic cirrhosis of the liver) daily variations in the richness of the granules which were quite apparent, and which were not associated with any corresponding rise or fall in the quantity of alloxur-bodies excreted. On the contrary, an increase in the granules could even be associated with a diminution in the alloxur-bodies and *vice versa.* A direct relation between the presence of Neusser's granules in the blood and an increased elimination of the alloxur-bodies, in the urine must therefore, Futcher thinks as a result of his experiments, be denied.

Herpes Zoster and Facial Paralysis.—EICHHORST (*Centralbl. f. innere Med.*, 1897, No. 18). This combination of symptoms is very rare. Ebstein, in 1895, was able to collate but eleven cases. The author has found seven others, and adds the following of his own: a woman, aged twenty years, no nervous disease in family, three children. Trouble began the day after sitting in a draught, with a drawing sensation in right side of face, slight tenderness over right eyebrow, followed by pain radiating from neck to back of head and on right side. On the third day a total right-sided facial paralysis. Four days later a vesicular eruption on the lower half of the right ear and in the auditory canal, on the right half of the tongue, uvula, and palate. The paralysis was very marked, with complete reaction of degeneration. The tongue protruded straight; touch and taste unimpaired. Sensation of face intact. No tenderness at points of exit of the fifth and seventh nerves. No cerebral symptoms. So far as the author knows, this is the fourth case in which the paralysis preceded the herpes. In all such cases, too, the herpes has been limited to the trigeminal distribution. The occurrence of such herpes on the mucous membrane has been described by Remak alone. It is well known that in facial paralysis of peripheral origin there occurs a gustatory paralysis of the anterior two-thirds of one-half of the tongue. From the case above, where this does not occur, we must conclude that the chorda tympani carries both taste and trophic fibres. Eichhorst thinks the phenomena in his case may be explained as follows: the trigeminus branches were involved; the tongue herpes was caused by continuation of the inflammation from the facial to the chordia tympani and affecting only its trophic fibres.

SURGERY.

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Cysts and Cystic Tumors of the Breasts.—SASSE (*Arch. für klin. Chir.*, 1897, Band liv. Heft 1), after a careful pathological and clinical study of a series of cases, which are reported in detail, arrives at the following classification of the cystic tumors of the breasts, which he divides into two principal groups:

1. Those produced by a chronic interstitial inflammation and resulting in a widening of the excretory ducts into cysts—mastitis chronica cystica, König.

2. Multiple cysts of the breasts resulting from a pure epithelial hypertrophy and cystic dilatation of the acini—polycystoma mammæ—which frequently are bilateral and are described by Reclus as maladie kystique, and by Schimmelbusch as cystadenoma. They have the same origin as the small cysts which are found in the sound portion of a breast hardened by carcinomatous disease in profuse numbers, and are found on the undersurface of the gland. The relationship between carcinoma and cyst-formation is shown by the ease with which the polycystoma—that is, the cystadenoma diffusum—can change into the carcinoma; so may, on the other hand, carcinoma of the breast cause, by the resulting irritation of its growth, the above cysts.

Among the cystic tumors there are many forms, which may be readily distinguished one from another and readily illustrated by groups of cases. From the cystic connective-tissue tumors, the cystosarcoma and fibro-adenoma, we have traced the relation to the epithelial tumors, and have first described the formation of the intracanicular cystic adenoma—how they originate in the walls of the excretory ducts as adenomatous hypertrophies, which fill up the lumen of the chest and then cause its dilatation and the